

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (original) A lamp comprising a lamp bulb (1), on the surface of which at least one interference filter (3) is at least partially located, wherein at least this interference filter (3) comprises several layers, wherein the layer structure comprises alternating layers (3.1) with a higher refractive index and layers (3.2) with a lower refractive index, wherein at least the outer layer and/or at least one inner layer of the interference filter (3) comprises a protective layer (4) to reduce thermal and/or intrinsic stresses, and wherein the thickness of the protective layer (4) or protective layers (4) has a value below 40% of the value of all other layers with the lower refractive index.
1. 2. (previously presented) Lamp as claimed in claim 1, characterized in that the materials used in the protective layer (4), the layer (3.2.), and the lamp bulb (1) have comparable indices of thermal expansion.
3. (previously presented) Lamp as claimed in claim 1, characterized in that the layer (3.2) of the interference filter (3) with the lower refractive index comprises mainly SiO₂.
1. 4. (previously presented) Lamp as claimed in claim 3, characterized in that the second layer (3.1) comprises a material from the group of titanium oxide, tantalum oxide, niobium oxide, hafnium oxide, silicon nitride, and zirconium oxide ZrO₂, or a mixture of these materials.
5. (previously presented) Lamp as claimed in claim 1, characterized in that the preferred lamp is a high intensity discharge lamp.

6.(original) Lamp as claimed in claim 1, characterized in that the one protective layer (4) or all protective layers (4) is or are arranged within the interference filter (3).

7. (Previously presented) Illumination unit with at least one lamp as claimed in claim 1.

1 8. (previously presented) Lamp as claimed in claim 3, wherein the second layer (3.1) of
2 the interference filter (3) comprises a material which has a higher refractive index than
3 SiO_2 .

9. (previously presented) Lamp as claimed in claim 8, wherein the second layer (3.1) of the interference filter comprises zirconia.

10. (previously presented) Lamp as claimed in claim 9, wherein the second layer (3.1) of the interference filter comprises mainly zirconium oxide (ZrO_2).

11. (previously presented) Lamp according to claim 2 wherein the bulb, the layer, and the protective layer have the same chemical compositions.

1 12. (previously presented) A lamp comprising
2 i) a lamp bulb;
3 ii) an interference filter disposed on a surface of the lamp bulb, the interference filter
4 comprising:
5 a) a first plurality of layers having a first index of refraction and made of a first
6 material; and
7 b) a second plurality of layers having a second index of refraction and made of a
8 second material, the second index of refraction being higher than the first
9 index of refraction, the second plurality of layers alternating with the first
10 plurality of layers, such that the filter begins at the lamp bulb with one of the
11 second plurality of layers and ends with one of the first plurality of layers; and

12 iii) at least one protective layer made of the first material, the protective layer having
13 a thickness that is no more than 40% of the total thickness of the first plurality of
14 layers.

13. (previously presented) Lamp according to claim 12, wherein the second material comprises zirconia and the lamp is a high intensity discharge lamp.

14. (previously presented) Lamp according to claim 13, wherein the first material comprises silica.

15. (previously presented) Lamp according to claim 12, wherein the protective layer comprises an outer layer.

1 16. (previously presented) Lamp according to claim 12, wherein the protective layer
2 comprises at least one of the first plurality of layers intermediate between the bulb and
3 an outside of the interference filter.

1 17. (previously presented) Lamp according to claim 16, wherein the protective layer
2 comprises at least two of the first plurality of layers intermediate between the bulb and
3 an outside of the interference filter.

18. (previously presented) Lamp according to claim 12, wherein the bulb is made of the first material.

19. (previously presented) Lamp according to claim 1, wherein the protective layer reduces thermal stress.

20. (currently amended) Lamp according to claim 1, wherein the lamp is a halogen lamp.

21. (new) Lamp according to claim 12, wherein a total thickness of the interference filter is over 3 μ m.

1 22. (new) Lamp according to claim 12, wherein the first material comprises silica and
2 the second material comprises zirconia and a thickness of the protective layer is chosen
3 to reduce thermal and/or intrinsic stress.

23. (new) Lamp according to claim 12, wherein the protective layer has a thickness in a range of 32%-40% of a total thickness of the first layers.

24. (new) Lamp according to claim 1, wherein the protective layer or layers have a thickness in a range of 32%-40% of a total thickness of the first layers.